CLAIMS

45. (new) A wave and tide actuated submersible pump for use in an open body of water, said wave and tide actuated submersible pump comprising a pump cylinder (7) having an open top end and a closed bottom end (13), said cylinder (7) is affixed to a structure located in an open body of water,

an inlet check valve (11) and an outlet check valve (12) connected to openings in the pump cylinder (7) near the lower end of said cylinder (7), said inlet check valve (11) allowing for the intake of water from the body of water and said outlet check valve (12) controlling the flow of water from the pump to a remote location,

a weighted piston (8) vertically reciprocally movable within the pump cylinder (7) and forming a pump chamber defined by said cylinder walls, said weighted piston and bottom end of said cylinder, said piston weight is sufficient to pump the fluid in which it is contained while returning said piston to its' lowest point of travel,

a buoy (1) connected to the weighted piston (8) by a flexible connector (4) for driving the weighted piston (8) on an upward stroke in response to wave action, said weighted piston (8) being driven in a downward stroke under force of gravity,

a means for restricting the upward stroke of the weighted piston (8) within the pump cylinder (7),

said flexible connector (4) passing through the top of said cylinder (7) and being attached to the top of the weighted piston (8) at a first end and to a lifting eye of the buoy (1) at a second end.

46. (new) The wave actuated submersible pump of claim 45 wherein said means for restricting the upward stroke of the weighted piston is a plurality of stop pins (6) which are securely attached and pass through openings adjacent said open top end of the pump cylinder (7).

47. (new) The wave actuated submersible pump of claim 45 wherein said lower plate (15) is a bottom plate end is suitable for imbedding the pump cylinder in the floor of the open body of water.

48. (new) The wave actuated submersible pump of claim 45 wherein said bottom enclosed end is a bottom flange plate (13) for securing the pump cylinder to submerged foundations at the floor of the open body of water.

49. (new) The wave actuated submersible pump of claim 45 wherein said weighted piston (8) includes sealing rings to provide a seal against the pump cylinder (7) .

50. (new) The wave actuated submersible pump of claim 45 wherein said buoy (1) includes a mooring eye (3) used to stabilize the direction of travel of the buoy (1).

51. (new) The wave actuated submersible pump of claim 45 wherein a mooring guide and wear ring (5) mounted to the top open end of the pump cylinder (7), said connector (4) passing through the top of said cylinder said mooring guide

and wear ring (5) and being attached to the top of the weighted piston (8) at a first end and to a lifting eye (2) of the buoy (1) at a second end.

52. (new)The wave actuated submersible pump of claim 45 wherein said weighted piston (8) includes an air vent passageway (18), a check valve ball (19) and an air vent chamber (34) for allowing air entrapped within the pump chamber to vent through the air vent passageway and out the open top of the pump cylinder (7).

53. (new) The wave actuated submersible pump of claim 45 wherein the water pumped by the submersible pump is delivered by outlet check valve means (12) to a hydro-electric power plant (45).

54. (new) The wave actuated submersible pump of claim 45 wherein the water pumped by the submersible pump is delivered by outlet check valve means (12) to pump contaminated fluid into evaporation ponds or large bodies of water for mineral and chemical extraction, refinement (41) and toxic waste removal from contaminated fluids (39).

55. ((new) The wave actuated submersible pump of claim 45 wherein the water pumped by the submersible pump is delivered by outlet check valve means (12) to pump salt water, creating large bodies of water and seas for the evaporation of said water thus forming moisture laden clouds where prevailing winds will blow these clouds to natural and man made barriers (50) causing rain to fall, creating new pasture and farmland (49) whilst moderating the earth's climate (51); said

additional moisture will cleanse the atmosphere and the whole cycle shall act as a radiator cooling the earth.

56. (new) The wave actuated submersible pump of claim 45 wherein the water pumped by the submersible pump is delivered by outlet check valve means (12) to desalinate water (47) using pumps as a source of energy to extract fresh water from the saltwater.

57. (new) The wave actuated submersible pump of claim 45 wherein the water pumped by the submersible pump is delivered by outlet check valve means (12) to a levied reservoir to raise sea animals and organisms for the harvesting of said sea animals and organisms (43).

58. (new) The wave actuated submersible pump of claim 45 wherein the water pumped by the submersible pump is delivered outside a levied area by outlet check valve means (12) to claim land from the sea by using these pumps with their suctions within the levied areas, to pump water out of said levied area (42).